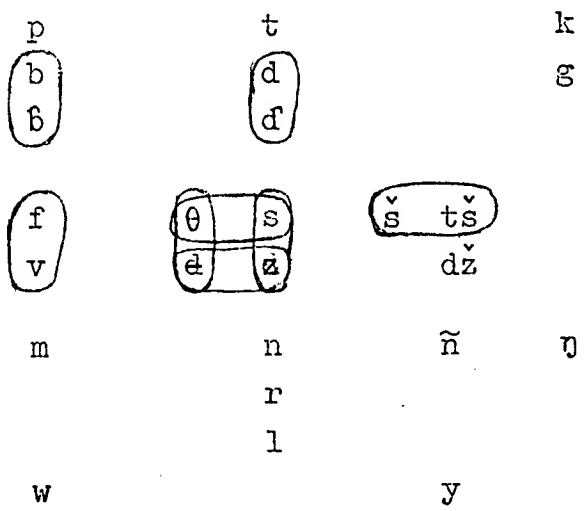
CHAPTER 1

Phonology

1. Phonemes

1.1. Consonants

Following is a phonetic chart of Murle consonants. Sounds which fluctuate with each other or are allophones of the same phoneme are circled.



1.1.1. Stops

Stops occur at the bilabial, alveolar, and velar points of articulation and have both voiced and voiceless forms. Voiceless stops occur in any position in a word; initial, medial, and final. Voiced stops occur word initial and word medial, but do not occur word final, because in this position they change to their voiceless counterpart. See Ch. 2: 1.1.

The three voiceless stops /p/, /t/, and /k/ are slightly aspirated in the word-initial and word-medial positions, but they have no aspiration in the word-final position.

a. The voiceless bilabial stop [p] is in contrast with the voiced bilabial stop [b].

/p/	/poc/	'young grass'
/b/	/boc/	'fish spear'
/p/	/apak/	'he splits'
/b/	/abakbak/	'he encloses'

b. The voiceless alveolar stop [t] is in contrast with the voiced alveolar stop [d].

/t/	/taal/	'buy'
/d/	/daal/	'choke'
/t/	/atɔɔk/	'he chases'
/d/	/adɔɔk/	'he beats'

c. The voiceless velar stop [k] is in contrast with the voiced velar stop [g].

/k/	/ki/	'mussel'
/g/	/gi/	'thing'
/k/	/akul/	'it flies'
/g/	/agul/	'crocodile'

d. The voiced bilabial stop with ingressive lung air [ɓ] and the voiced alveolar stop with egressive lung air [ɗ] occur only before back vowels. In this position they fluctuate with [b] and [d] respectively. These ingressives are not used at all by many Murle speakers.

[ɓ]~[b]	[ɓuk] ~ [buk]	'also'
	[ɓorra]~[borra]	'cat'
	[ɓɔɔt] ~ [bɔɔt]	'cave'
[ɗ]~[d]	[ɗoon] ~ [doon]	'only'
	[ɗɔl] ~ [dɔl]	'children'

/b/ and /d/ are chosen to represent the fluctuation of these two phones, since [b] and [d] are the more commonly used forms and also occur elsewhere in the language.

Rewrite:

/buk/	'also'
/borra/	'cat'
/boot/	'cave'
/doon/	'only'
/dol/	'children'

1.1.2. Fricatives

a. The voiceless labiodental fricative [f] and the voiced labiodental fricative [v] are in complementary distribution.

[f] occurs word final.

[aduuf]	'he boasts'
[kɛɛf]	'I cultivate'

[v] occurs elsewhere.

[volɔŋ]	'lie'
[kavaci]	'I throw'

/v/ is chosen to represent these allophones.

Rewrite:

/aduuv/	'he boasts'
/kɛɛv/	'I cultivate'
/volɔŋ/	'lie'
/kavaci/	'I throw'

b. The voiceless alveolar grooved fricative [s] fluctuates with the interdental fricative [θ].

[cees] ~ [ceeθ]	'house'
[kabas] ~ [kabaθ]	'knife'

The voiced alveolar grooved fricative z fluctuates with the voiced interdental fricative đ.

[ziit] ~ [điit]	'metal'
[guzul] ~ [guđul]	'hyena'

Furthermore, [z ~ đ] and [s ~ θ] are in complementary distribution.

[s ~ θ] occurs word final.
[z ~ đ] occurs elsewhere.

There is a great deal of latitude permitted in this fricative and both the interdental and the alveolar are acceptable. However, the norm is somewhere in between these two positions.

The symbol chosen to represent these phones is /z/ since it is a simple symbol and the voiced allophone is more common than the voiceless allophone.

Rewrite:

/ceez/	'house'
/kabaz/	'knife'
/ziit/	'metal'
/guzul/	'hyena'

1.1.3. Affricates

a. The voiceless alveopalatal grooved affricate [tš] is in contrast with the alveopalatal grooved affricate [dž].

/tš/	/tšin/	'see'
/dž/	/džin/	'ask'
/tš/	/matšar/	'brisket'
/dž/	/adžaar/	'he passes'

/tš/ and /dž/ will be interpreted as /c/ and /j/ respectively since the Murle language does not have consonant clusters.

Rewrite:

/cin/	'see'
/jin/	'ask'
/macar/	'brisket'
/ajaar/	'he passes'

b. The voiceless alveolar grooved affricate [c] is in fluctuation with the voiceless alveopalatal grooved fricative [š]. In fast speech [š] is commonly used. This is especially true near the end of words. However, when these words are spoken distinctly, the sound is clearly a [c].

[c] ~ [š]	[wanico] ~ [wanišo]	'today'
	[toloc] ~ [tolož]	'chicken'

/c/ is chosen as the phoneme to represent this fluctuation, since careful speech is used as the basis for phonological analysis. (Hooper, 1976)

Rewrite:

/wanico/	'today'
/toloc/	'chicken'

c. The voiced alveopalatal grooved affricate [j͡] is in contrast with the voiced alveolar grooved fricative [z͡].

/j/	/jook/	'god'
/z/	/zooc/	'foot'
/j/	/kajac/	'kob'
/z/	/kazac/	'sand'

1.1.4. Nasals

The voiced bilabial nasal [m] and the voiced alveolar nasal [n] and the voiced alveopalatal nasal [ñ] and the voiced velar nasal [ŋ] are all in contrast with each other in all positions.

/m/	/maa/	'lion'
/n/	/naana/	'I'
/ñ/	/ñaan/	'beer'
/ŋ/	/ŋaa/	'woman'
/m/	/amot/	'he grabs'
/n/	/anot/	'he sees'
/ñ/	/eñɛt/	'he builds'
/ŋ/	/aŋɛdɛt/	'he chops'
/m/	/agam/	'he holds'
/n/	/azan/	'thigh'
/ñ/	/vañ/	'den'
/ŋ/	/taŋ/	'cow'

The phoneme /ñ/ will be written as /ny/ since this is the form used in African languages.

Rewrite:

/ny/	/nyaan/	'beer'
	/ɛnyɛt/	'he builds'
	/vany/	'den'

1.1.5. Resonants

a. The voiced alveolar flap [r] is in contrast with the voiced alveolar lateral [l] in all positions.

/l/	/laan/	'arrow'
/r/	/raane/	'bathe'
/l/	/alaam/	'he stops'
/r/	/caraam/	'skirt'
/l/	/kol/	'open'
/r/	/kor/	'sun'

b. The voiced alveolar flap [r] is in contrast with the voiced alveolar stop [d].

/r/	/raal/	'bewitch'
/d/	/daal/	'choke'
/r/	/aromɛ/	'he meets'
/d/	/adoma/	'he takes'

c. In the Murle language there are two semivowels: the voiced labiovelar vocoid /w/ and the voiced palatal vocoid /y/, as in the following examples:

/w/	/walaak/	'crow'
	/kowat/	'snake'
	/yawyaw/	'dirt'
/y/	/yubuz/	'rest'
	/biyɛn/	'stones'
	/toy/	'fish trap'

More discussion can be found on semivowels under 2.2.2.

1.1.6. Phonemic chart of consonants

	Labial	Alveolar	Alveopalatal	Velar
Stops, Voiceless	p	t	c	k
Voiced	b	d	j	g
Fricatives	v	z		
Nasals	m	n	ny	ŋ
Resonants, Flap		r		
Lateral		l		
Semivowels	w		y	

1.2. Vowels

Phonetic chart of vowels

i, ɪ		u
e		o
ɛ	ə, a	ɔ

1.2.1. The voiced high close front unrounded vocoid [i] is in contrast with the voiced mid close front unrounded vocoid [e].

/i/	/itat/	'ear'
/e/	/etom/	'twenty'

1.2.2. The voiced high close front unrounded vocoid [i] fluctuates with the voiced high open front unrounded vocoid [ɪ] between consonants.

[i]~[ɩ]	kacin	kacɩn	'I see'
	dila	dɩla	'spear'

[i] occurs elsewhere.

[i]	/itat/	'ear'
	/kawudi/	'I drink'

/i/ is chosen to represent this phoneme because it has a wider distribution.

Rewrite:

/kacin/	'I see'
/dila/	'spear'

1.2.3. The voiced mid close front unrounded vocoid [e] is in contrast with the voiced mid open front unrounded vocoid [ɛ].

/e/	/arek/	'he puts'
/ɛ/	/arɛk/	'she grinds'

1.2.4. The voiced mid open front unrounded vocoid [ɛ] is in contrast with the voiced low open central unrounded vocoid [a].

/ɛ/	/akɛtkɛt/	'sweet'
/a/	/akat/	'he spears'

1.2.5. The voiced high close back rounded vocoid [u] is in contrast with the voiced mid close back rounded vocoid [o].

/u/	/iju/	'pot'
/o/	/ijo/	'load'

1.2.6. The voiced mid close back rounded vocoid [o] is in contrast with the voiced low close back rounded vocoid [ɔ].

/o/	/kawo/	'I call'
/ɔ/	/kawɔ/	'I walk'

1.2.7. The voiced low open central unrounded vocoid [a] is in contrast with the voiced low close back rounded vocoid [ɔ].

/a/	/daŋ/	'argue'
/ɔ/	/dɔŋ/	'mortar'

1.2.8. The voiced low open central vocoid [a] is in fluctuation with the voiced mid open central vocoid [ə].

has been found to occur in only the following word, in which it is slightly nasalized.

[a]~[ə] [na] ~ [nə] 'why'

Since both pronunciations are in fluctuation and the phone [ə] is so rare, /a/ is chosen as the symbol for this phoneme.

/a/	/na/	'why'

1.2.9. All vowels can be lengthened, and these are in contrast with their short conterparts.

/i/	/libir/	'side'
/i•/	/abi•r/	'it ripens'
/e/	/merkec/	'sheep'
/e•/	/me•ri/	'red'
/ɛ/	/ɛlɛ/	'body'
/ɛ•/	/ɛ•l/	'are'

/a/	/kadak/	'to eat'
/a•/	/kada•k/	'to die'
/u/	/gumut/	'ibis'
/u•/	/gu•mun/	'owl'
/o/	/dokol/	'serval cat'
/o•/	/do•k/	'all'
/ɔ/	/cɔk/	'wet'
/c•/	/cɔ•k/	'smell'

Lengthened vowels are interpreted as a single phoneme rather than a vowel cluster since there are no other vowel clusters in the language. All lengthened vowels, however, will be written in this paper as double vowels.

Rewrite:

/abiir/	'it ripens'
/meeri/	'red'
/ɛɛl/	'are'
/kadaak/	'to die'
/guumun/	'owl'
/dook/	'all'
/cɔɔk/	'smell'

1.2.10. Phonemic chart of vowels.

	Front	Central	Back
High	i		u
Mid	e		o
Low	ɛ	a	ɔ

1.2.11. When vowels occur word initial, they are preceded by a slight glottal stop [ʔ]. There is also a glottal stop at the end of an imperative verb if the imperative form ends in a vowel. The strength of this glottal stop depends on how loudly or forcefully the imperative is spoken.

[ʔ]	[ʔaku]	'he comes'
	[ʔoroʒ]	'dog'
	[bitɔʔ]	'go !'
	[ijaʔ]	'come !'

Since the glottal stop is predictable and consistent, it will not be written in the remainder of this paper.

Rewrite:

/aku/	'he comes'
/oroz/	'dog'
/bitɔ/	'go!'
/ija/	'come !'

2. Syllable Patterns and Distribution of Phonemes

2.1. Syllable Patterns

The maximum expanded syllable pattern in Murle is (C) V (•) (C). The following examples show the syllable types that can occur.

V	/o/	'of'
V•	/ii/	'day'
CV	/co/	'this'
VC	/ɔl/	'people'
CVC	/cap/	'tie'
CV•	/kaa/	'to'
V•C	/ɛɛz/	'goat'
CV•C	/buul/	'age-set'

2.2. Distribution of Phonemes

In general, the distribution of phonemes within a syllable has few restrictions. There are no co-occurrence restrictions between vowels and consonants. Fricatives, nasal, resonants, and voiceless stops can stand in any consonant slot. Voiced stops occur syllable initial and occasionally syllable final. However, voiced stops can never occur syllable final if that syllable is the final syllable in a word.

2.2.1. Consonant clusters do not exist within the Murle syllable, although consonants will stand next to each other within a word across syllable boundaries. This is most common with identical consonants, as in the following examples.

/bor.ra/	'cat'
/ki.baal.lic/	'bird'
/a.bak.ki/	'drunk'

Unlike consonants may also stand next to each other word medially across syllable boundaries, as the following examples show.

/cam.kit/	'tiger fish'
/ar.tɛ/	'grass'
/ko.roog.jok/	'homesteads'

2.2.2. The semivowels are interpreted as consonants because it keeps the language consistent with the above syllable patterns, which do not include any vowel clusters. (Welmers, 1973, p. 29-30)

When [u] or [i] occur initially before another vowel, they take on a definite [w] or [y] quality, and are interpreted as consonant in this position.

/w/	/waaz/	'noon'
/y/	/yatigan/	'my mother'

When [u]or[i] occur intervocalicly, they again take on a definite consonant quality and are interpreted as /w/ or /y/ respectively.

/w/	/kowat/	'snake'
/y/	/biyɛn/	'stones'

When [u] or [i] occur word final following another vowel, they are interpreted as consonants. However, the suffix -i is attached to many nouns and verbs, and in some cases the final consonant drops out, leaving the suffix -i directly following another vowel. In this situation the vowel /i/ will be written, in order to give a clear understanding of the grammatical constructions, even though phonologically it is interpreted as a /y/.

/yitoi/	'guide'
/kabaai/	'I live'

3. Phonological Word

3.1. Syllable Distribution

A word can be made up of only one syllable; however, usually two or more syllables stand together to form a single word. As many as six syllables can be put together to form a single word.

/ki.zi.wa.nɛ.ta/	'buffalos'
/ki.jin.to.zo.ze.ya/	'we were asked for'

The four syllable types beginning with a consonant (CV, CVC, CV•, and CV•C) can occur in any position in a word. The four syllable types beginning with a vowel (V, V•, VC, and V•C) occur only word initial. The exception to this restriction is when a vowel suffix attaches to the end of a word ending in a vowel. In this case it is possible to get a V syllable word final.

/ŋaa.o/	'of a woman'

3.2. Tone and Stress

Tucker & Bryan (1966, p. 371) state that there are three tones, and that they may be lexically significant. However, my findings show that on the word level, tone does not have lexical significance. In an isolated word, tone is closely connected with stress and lengthened vowels, and the three must be considered as one entity. When a word has a lengthened vowel, the high tone and stress also occur on the syllable with the lengthened vowel. If there is no lengthened vowel in a two-syllable word, then the stress and high tone are usually put on the first syllable. *

/ká̀dak/	'to eat'
/kaḍáak/	'to die'

Words of three or more syllables are more unpredictable, although again the stress and high tone usually go on the first syllable if there is no syllable with a lengthened vowel.

/kíziwan/	'buffalo'
/moṭɓoŋtoc/	'tamarind tree'

4. Pause Group

Words are put together into pause groups. The end of each pause group is marked by a change in tone pattern and a pause. Although tone and stress are sometimes confusing in isolated words, pause group intonation is a more important factor than tone and stress on the word level, and overrides any stress-tone pattern on isolated words. The last syllable of each succeeding word in a pause group is normally stressed, and carries a high tone. The last word of a declarative pause group carries a dropping tone and little, if any, stress.

* Further study of the implication of the exceptions needs to be made.

[Karɔɔŋ naana kicin taŋ can.]
I want I to see cow my
'I want to see my cow.'

A pause group containing a yes/no question has high tone and stress on the final syllables of the pause group.

[Arɔɔŋ niina ako mɛlɛgenyai?]
want you to go market
'Do you want to go to the market?'

A pause group containing a question word at the end has high tone and stress on the penultimate syllable of the pause group and a sharp drop in tone on the last syllable.

[Ako niina ŋaadaŋ?]
go you where
'Where are you going?'

CHAPTER 2

Morphophonemic Phenomena

1. Voiced and Voiceless Stops

1.1. /p/ and /b/, and /t/ and /d/, and /c/ and /j/, and /k/ and /g/ are all separate phonemes in contrast with each other, as proved in Chapter 1. However, in a word-final position the voiced stops /b/, /d/, /j/, and /g/ change to their voiceless counterparts /p/, /t/, /c/, and /k/. This becomes obvious when words drop or add suffixes, since the stops change back and forth between voiced and voiceless forms depending on whether they are at the word-medial position or word-final.

1.2. Examples:

/b/→/p/	/kilibwa/ ⟶	/kilip/
	'shields'	'shields'
/d/→/t/	/katoodi/ ⟶	/katɔɔt/
	'I climb'	'we climb'
/g/→/k/	/kulugit/ ⟶	/kuluk/
	'fish'	'fishes'
/j/→/c/	/yeelajo/ ⟶	/yeelac/
	'of a dove'	'dove'

1.3. It is important that the surface forms be written rather than the underlying forms, because there are vowel changes that are conditioned by the surface forms.

Therefore, when these voiced stops become their voiceless counterparts, the voiceless forms will be written in order to explain the vowel changes.

/kawudi/ ⟶ /awot/
'I drink' 'he drinks'

In the above example, the /d/ in /kawudi/ becomes /t/ when it occurs word final in /awot/. This triggers the change of the /u/ in /kawudi/ to the /o/ in /awot/.

1.4. This raises the problem of determining the underlying form of the root of a word. The root cannot be found by looking at the shortest form. For example, if one looks at the imperative form of a verb (the shortest form) which ends in a stop, the stop will always be voiceless because of its final position in the word. There is no way of knowing whether that final stop is inherently a voiceless or a voiced stop. In a verb one must look at a form which contains a suffix. The stop then becomes word medial and occurs in its underlying form. It is important to realize that stops which are inherently voiceless retain the voiceless quality even when they occur word medially; only the stops which are inherently voiced will change back to their voiced forms.

/tɛɛt/ ⟶ /kateedi/
'cut' 'I cut'

/not/ ⟶ /kanoti/
'look at' 'I look at'

In the above examples, the final /t/ in /tɛɛt/ is inherently voiced and it therefore reverts back to /d/ when followed by a suffix, as in /kateedi/. However, the final /t/ in /not/ is inherently voiceless and therefore maintains its voiceless form even when a suffix is added.

2. Weak Vowels.

2.1. The vowels /ɛ/, /o/, and /ɔ/ are weak vowels and are raised to the vowel above them in certain environments.

/ɛ/→/e/
/o/→/u/
/ɔ/→/o/

2.2. The environment which causes these changes works from the end of the word, going from right to left. Therefore when a suffix is added or deleted from a word, it influences changes in the word to which it is attached. (Antell et al.)

2.3. The weak vowels are raised in the environments of high vowels /i/ and /u/, and to a lesser degree by mid vowels /e/ and /o/. However, sometimes if a medial /t/ precedes these vowels, it blocks the raising effect on the preceding weak vowels. The weak vowels also will be raised in the environments of voiced stops /b/, /d/, /j/, and /g/, and the pull upward is especially strong if a high vowel and voiced consonant occur together. The weak vowels are also raised in the environments of the alveopalatals /c/, and /ny/, and sometimes by a final /n/ or /t/. (See Addendum 2 for revised treatment.)

2.4. /o/ raises to /u/

/awot/ ——————→ /kawudi/
'he drinks' 'I drink'

In this example the suffix <u>-i</u> is added in the word /kawudi/. The final /t/ of /awot/ reverts back to a /d/, and the strong pull of the voiced stop /d/ and the high vowel /i/ pulls the weak vowel /o/ up to a /u/ in the form /kawudi/.

/otok/ ——————→ /utugeti/
'mouth' 'mouths'

Here the plural suffix -eti is added to the singular form /otok/. The final /k/ thus becomes medial and reverts back to /g/, and the environment of the voiced stop /g/ and the vowels /e/ and /i/ of the new suffix pull the original /o/ phonemes up to /u/ phonemes, thus forming the word /utugeti/.

2.5. /ɛ/ raises to /e/

/akɛɛp/ ——————→ /kakeebi/
'he reads' 'I read'

In this example the suffix -i is added. The /p/ of /akɛɛp/ is no longer word final so it reverts back to a /b/. The combined environment of the voiced stop /b/ and the high vowel /i/ pull the /ɛɛ/ up to /ee/ forming the word /kakeebi/.

/kɛbɛrɛ/ ——————→ /keberec/
'eyes' 'eye'

When the singular marker -c is added, all the weak /ɛ/ vowels are raised to /e/.

2.6. /ɔ/ raises to /o/

/arɔɔt/ ——————→ /karoodi/
'he hides' 'we hide'

When the suffix -i is added, the final /t/ of /arɔɔt/ reverts back to /d/. The combined environment of the voiced consonant /d/ and the high vowel /i/ pull the /ɔ/ up to an/o/.

/dɔl/ ——————→ /dole/
'children' 'child'

When the singular suffix -e is added, the /ɔ/ of /dɔl/ is raised to /o/.

2.7. This situation means that the underlying form of the root of some words is unpronouncable in the language but the stop-voicing rule and the vowel-raising rule change the root to its pronouncable surface forms.

tɛɛd ⟨ kateedi 'I cut'
atɛɛt 'he cuts'

The form tɛɛd is actually never found within the language.

2.8. The vowel-raising rule described here works together with a vowel-agreement rule. When a weak vowel is raised by its environment, all the like vowels in a word will also change in order to agree. In the perfect and subjunctive modes of the verb, the mode marker is a reduplication of the vowel in the stem of the verb, which is placed in front of the stem. When the vowel in the stem is a weak vowel which changes with a new environment, then even the mode marker will change in order to keep in agreement with the change in the verb stem.

/ɛtɛɛt/ ——————→ /eteedu/
'he cut' 'you cut' past

/koroma/ ——————→ /urumu/
'I joined' 'you joined'

3. Weak Consonants

3.1. The consonants /k/, /t/, and /c/ have both weak and strong forms. When they are strong they will stand

in all positions. A weak consonant will stand word final, but will drop out when a suffix is added. When one of these consonants is seen in a word-final position, there is no way of knowing whether it is weak or strong until a suffix is added to the word.

3.2. The following are examples of the strong /k/, /t/, and /c/.

/k/	/ajuk/ ⟶	/kajuki/
	'he throws'	'I throw'
	/ŋɛŋɛk/ ⟶	/ŋɛŋɛknya/
	'stinging fish'	'stinging fishes'
/t/	/agumut/ ⟶	/agumutwa/
	'sacred ibis'	'sacred ibises'
/c/	/boloc/ ⟶	/boloci/
	'pool'	'pools'

3.3. The following are examples of weak /k/, /t/, and /c/.

/k/	/aruk/ ⟶	/karui/
	'he beats'	'I beat'
	/kadikok/ ⟶	/kadikonya/
	'axe'	'axes'
/t/	/karwɛt/ ⟶	/karwenya/
	'crested crane'	'crested cranes'
/c/	/loroc/ ⟶	/lorowa/
	'male kob'	'male kobs'

4. Semivowels

4.1. A /w/ or /y/ is placed between the vowels if a

word ends in a vowel and the suffix begins with a vowel.

/boca/ + /-ɛt/ ⟶ /bocawɛt/
'fish-hook' 'fish-hooks'

/ti/ + /-ɛn/ ⟶ /tiyɛn/
'ring' 'rings'

/kala/ + /-i/ ⟶ /kalayi/
'we beg' 'I beg'

4.2. There is no way of predicting which semivowel will be used before a given suffix. The Murle themselves will sometimes vary on their choice of semivowels in certain words.

4.3. When a weak consonant drops out, it may frequently cause a situation where the addition of the new suffix would put two vowels together. In this situation a semivowel is inserted where the weak consonant dropped out. The weak consonant does not actually change to a semivowel, but rather it is the working of the two rules in sequence: first the dropping out of a weak consonant, and then, since the vowels are now contiguous, an insertion of a semivowel.

/cabak/ + /-ɛt/ ⟶ /cabayɛt/
'net' 'nets'

/tuuk/ + /-anɛ/ ⟶ /tuuwanɛ/
'well' 'wells'

4.4. The only exceptions to the insertion of a semivowel are in some of the verbs which end in a weak /k/. When the /k/ drops out because of a -i suffix, the -i will sometimes be attached directly to the preceding vowel.

/kabaak/ + /-i/ ——→ /kabaai/
'we live' . 'I live'

/katook/ + /-i/ ——→ /katooi/
'we chase' 'I chase'

5. Elision

5.1. There are some small particles in Murle which end in vowels, such as /ci/ and /ma/. When these occur in casual speech in front of a word beginning with a vowel, the vowel of the particle drops out.

/ci alaano/ ————→ /calaano/
'of the chiefs' 'of the chiefs'

/ma azi/ ————→ /mazi/
'and says' 'and says'

In careful speech however, the vowel of the particle is retained. Using careful speech as the basis for analysis, these particles will therefore maintain their separate identity.

5.2. When the particle /o/ occurs before a word beginning with a vowel in casual speech, the /o/ takes on the quality of a word-initial /w/.

/o alaano/ ————→ /walaano/
'of a chief' 'of a chief'

/o arukan/ ————→ /warukan/
'who beat me' 'who beat me'

Again, however, in careful speech the particle /o/ takes on its vowel quality and therefore retains its separate identity.

5.3. There is one notable exception to the particle retaining its separate identity. Some possessive pronouns in Murle are a combination of /ci/ and a dependent possessive suffix: -an, -un, -in. Since the dependent suffixes cannot stand alone, elision has occured below the surface level and the elided forms have become independent and meaningful words in their own right.

/ci/ + /-an/ ⟶ /can/ 'my'
/ci/ + /-un/ ⟶ /cun/ 'your'

6. Other Morphophonemic Rules

6.1. If a word ends in either /l/ or /r/ and is followed by a suffix beginning with a low or mid vowel, a /y/ is inserted before the suffix.

/boor/ + /-ok/ ⟶ /booryok/
'clan' 'clans'

/dɔl/ + /-a/ ⟶ /dɔlya/
'children' 'children' (nom)

6.2. If a /b/ or /g/ comes before a suffix beginning with a low vowel, a /j/ is inserted before the suffix.

/kɔrɔɔk/ + /-ok/ ⟶ /koroogjok/
'home' 'homes'

/kakɛɛp/ + /-a/ ⟶ /kakɛɛbja/
'we all count' 'we count' (excl)

6.3. When a word ends in a velar nasal /ŋ/, it adds a /ny/ before taking a suffix beginning with a vowel.

/gaaŋ/ + /-ok/ ⟶ /gaaŋnyok/
'fight' 'fights'

/karɔɔŋ/ + /-a/ ⟶ /karɔɔŋnya/
'I want' 'we want'

6.4. When a noun ends in a /n/ it often adds a /t/ before adding the vowel case suffix.

/kuduvaan/ + /-i/ ⟶ /kuduvaanti/
'vulture' (acc) 'vulture' (nom)

/dɛmziin/ + /-o/ ⟶ /dɛmziinto/
'learning' 'of learning'

6.5. The nasal /n/ is sometimes placed between vowels if a word ends in a vowel and the suffix begins with a vowel. It divides the vowels in the same way as the semivowels. There is no way to predict whether a /n/ or a semivowel will be used in any given word, but the semivowels are by far the most common.

/kaluwa/ + /-ɛn/ ⟶ /kaluwanɛn/
'fence' 'fences'

6.6. When a word ends in a /z/ preceded by a vowel, the vowel drops out when a suffix is added.

/oroz/ + /-ɛ/ ⟶ /orzɛ/
'dog' 'dogs'

/zɛnɛz/ + /-eti/ ⟶ /zenzeti/
'heart' 'hearts'

6.7. All of the above morphophonemic rules generally apply throughout the language; however, there are always some exceptions to the rules. Sometimes weak vowels will resist the vowel-raising rule and maintain their weak form throughout. Occasionally a weak consonant will resist dropping out when a suffix is added. These are, nevertheless, highly productive rules in the language, even though there are a few forms for which they do not account.

MURLE GRAMMAR

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Occasional Papers in the Study of
Sudanese Languages
No.2

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1982